

DEPARTMENT OF FOOD AND AGRICULTURE

Division of Measurement Standards
6790 Florin Perkins Road, Suite 100
Sacramento, CA 95828-1812
Phone: (916) 229-3000
Fax: (916) 229-3026

A.G. KAWAMURA, Secre



DMS Notice
D – 06 -01

October 12, 2006

Discard: Retain

TO WEIGHTS AND MEASURES OFFICIALS

SUBJECT: Retail Meter Calibration by Proving Meter

We have recently been asked about a new meter-to-meter proving system being used by a service agency to calibrate retail motor fuel dispensers. Questions have been raised concerning validity of this method of calibration. Provided the service agency possesses a traceable five-gallon test measure and periodically verifies the meter, there is no prohibition against use of this method by service agents.

The new technology is a closed meter to meter calibration system that prevents loss of fuel from vaporization. The prevailing method of determining the volume of fuel delivered is by dispensing fuel into open-top test measures where evaporation of liquid can be on the order of 1 to 2 cubic inches in a five gallon draft. Thus, when calibrated using open test measures, a dispenser will, in effect, be adjusted to over-deliver by this amount.

We are not aware of any evidence that dispensing product into an open-top test measure is any less representative of the volume reduction encountered when fueling a vehicle, than the closed system calibration method.

Because open top volumetric standards are the recognized traceable method for verifying retail motor fuel dispensers, agents using a closed system should calibrate dispensers to accurately deliver fuel consistent with open-top volume standards.

Important points for service agencies and officials to remember are:

- Dispensers, including the nozzle shut-off, meter creep, computer jump, etc., must conform to all requirements when the dispenser is returned to service.
- Verification will be performed predominately with open-top volumetric test standards and this method is recognized throughout the United States.

- Officials cannot seal dispensers based upon observing tests conducted with non-NIST-traceable standards.

If you have questions or comments, you may contact your regional Device Program Specialist or Ken Lake.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mike Cleary', with a stylized flourish at the end.

Mike Cleary
Director

cc: Ed Williams, Director, County Liaison Office